WHAT IS CLAIMED IS:

1. A translation system, comprising:

a front end for identifying source elements in a source file; and

a back end for generating a translation file having translation elements corresponding to translation of said identified source elements and having an interface for receiving inputs for modifying said translation.

2. The system of Claim 1, wherein the source file is for a source device and the translation file is for a disparate target device.

3. The system of Claim 1, wherein the source file is a linear assembly file for a target device and the translation file is a scheduled assembly file for that device.

4. The system of Claim 1, wherein the source file is an assembly language file.

5. The system of Claim 4, wherein the translation file is an assembly language file.

6. The system of Claim 1, wherein said translation is a context-dependent translation based on static analysis of the source file.

7. The system of Claim 1, wherein the back end further comprises:

a translator for performing a context-dependent translation, the translator comprising:

a translation machine description for mapping source opcodes to target opcodes;

a source machine description containing a description of source opcodes and source operands in a generic representation;

a target machine description containing a description of target opcodes and target operands in a generic representation; and

wherein the translator receives a source instruction from said front end, utilizes the translation machine description and source machine description and target machine description to translate source elements into target elements.

8. The system of Claim 7, wherein the proper target opcode is chosen from a group of potential target opcodes by comparing the target opcode and target operand with the source opcode and source operand.

9. The system of Claim 7, wherein two or more source opcodes can be combined to a single target opcode when there is a target opcode that represents the two or more source code opcodes.

10. The system of Claim 1, wherein the user interface is a graphical user interface.

11. The system of Claim 10, wherein the graphical user interface displays at least a portion of the source elements in a source window, at least a portion of the translation

elements in a translation window, and the source and translation windows are displayed side-by-side.

12. The system of Claim 11, wherein corresponding groups of elements of the source and translation files are aligned in the source and translation windows.

13. The system of Claim 11, wherein at least one of the source and translation windows is operable to display a status icon for an element in the window.

14. A method for performing translation comprising:

receiving a source file;

identifying source elements in the source file;

generating a translation file having translation elements by performing a context-dependent translation of the source elements;

displaying the translation elements in an interface for receiving user inputs; and

in response to user inputs, automatically regenerating selected translation elements based on the user inputs.

15. The method of Claim 14, wherein the source file is for a source device and the translation file is for a disparate target device.

16. The method of Claim 14, wherein the source file is a linear assembly file for a target device and the translation file is a scheduled assembly file for said target device.

17. The method of Claim 14, wherein the source file is an assembly language file.

18. The method of Claim 17, wherein the translation file is an assembly language file.

19. The method of Claim 14, further comprising:

performing static analysis of the source elements in the source file; and

performing context-dependent translation of the source elements based on the static analysis.

20. The method of Claim 14, wherein the step of generating a translation file further comprises:

converting an opcode of a source machine to an opcode of a translation machine file by comparing the source opcode to possible translation opcodes;

converting the operand of the source opcode by comparing an operand of the source opcode in a generic expression with a generic expression for a translation operand;

combining the translation opcode and the translation operand to form a translation.

21. The method of Claim 20, wherein the step of converting an opcode of the source file further comprises choosing a translation opcode from a group of potential translation opcodes by comparing the translation opcode and translation operand with the source opcode and source operand.

22. The method of Claim 20, wherein the step of converting the source opcode further comprises the step of combining two or more source opcodes into a single translation opcode when there is a translation opcode that represents the two or more source opcodes.

23. The method of Claim 14, wherein the user interface is a graphical user interface.

24. The method of Claim 23, further comprising:

displaying the source elements in a source window;

displaying the translation elements in a translation window; and

displaying the source and translation windows side-by-side in the graphical user interface.

25. The method of Claim 24, further comprising aligning corresponding groups of elements of the source and translation files in the source and translation windows.

26. The method of Claim 24, further comprising displaying a status icon for an element in at least one of the source and translation windows.

27. A translation system, comprising:

a computer capable of executing a program, and

an interactive program for translating code for a first processor into code for a second processor and capable of being executed on said computer.